terior nerve roots. In the diagnosis of these cases we should not rely so much on the presence of pain as we should on root symptoms.

Dr. FISHER said that in the case reported the man complained of little or no pain. There were no shooting pains characteristic of involvement of any of the nerve roots. There was a gradual loss of power in the lower extremities, which became complete ten or twelve days before death, showing a compression myelitis.

Dr. HERTER said the diagnosis in these cases is often very difficult. Still, he did not see how the symptoms pointed to locomotor ataxia. The rapid progress of the disease, the lack of sensory symptoms, the motor symptoms, their unilateral character—these certainly did not point to tabes. The speaker agreed with Dr. Starr that pain is an early and very constant symptom in these cases of tumor of the cord; it is, perhaps, the most important symptom. Where the tumor involves the cord substance, we are apt to find a rather characteristic symptom, namely, marked contracture, either on the side affected or on both sides.

PHILADELPHIA NEUROLOGICAL SOCIETY.

Stated Meeting, December 17, 1894.

Dr. WHARTON SINKLER, President, in the Chair.

Dr. F. X. DERCUM read a paper on

THREE CASES OF BERI-BERI. (See page 103.)

DISCUSSION.

Dr. JUDSON DALAND.—This report has interested me, especially from an etiological standpoint. A review of the literature dealing with the cause of this disease has led me to the conclusion that the evidence is conflicting, and at present we cannot place our fingers on any one cause for beri-beri. It is quite evident that we are dealing with a polyneuritis. The disease known as beri-

beri exists in Japan, more especially in Tokio, in an epidemic form, but, as I have not had an opportunity to study the Japanese beri-beri, I restrict my remarks to those cases brought to Philadelphia. I am rather inclined to think that the cases under observation are examples of ptomaine poisoning. In the cases that I observed here a year ago we had evidences of overwork, semi-starvation, and they had been fed on decomposing fish. Dr. Dercum's cases had been fed chiefly on old salt beef which was putrid. The men received only a small quantity of vegetables, and the rain water used for drinking purposes was bad. It seems to me that decomposing fish, taken for three or four months under these conditions, might fairly be looked upon as a cause of the symptoms; and I feel that the cases reported to-night are precisely like the cases observed a year ago, namely, cases of multiple neuritis, the result of ptomaine poisoning from the use of decomposing fish or beef.

The epidemics that occur in Japan may be due to other causes. The Japanese do not use much meat. They do use fish, but rice is the principal article of food. It may be that at times there is a fungoid change in the rice analogous to that which takes place in corn (modnein nillagra), and that the nervous symptoms are due to this cause. Ergotism from spurred rye is well known.

I was also interested in the cardiac lesions. Dr. Dercum described the physical signs as they were at the time. It is interesting to note that since the examination the mitral systolic murmur has disappeared. The murmur at the aortic orifice persists, and probably may be accounted for by an old rheumatic endocarditis.

The condition of the stomach is of interest, and even to-day this extreme dilatation persists. The supposition that it is due to involvement of the pneumogastric nerve is most plausible.

The cases of wet beri-beri, or those characterized by dropsies, seem almost always to be connected with a neuritis involving the cardiac branch of the pneumogastric, probably the trophic branches more especially, with consequent degeneration of the heart muscle, dilatation and cardiac failure.

The sensory symptoms referring to the skin are of interest, not only from the fact that in one of the three cases there was a considerable degree of analgesia, more particularly of the lower extremities, but from the fact that this analgesia varied from day to day. Since the last examination there has been distinct improvement. The three cases I observed a year ago showed analgesia to a marked extent.

With regard to the blood, not many examinations have been made, but in all attention has been directed to the possibility of the presence of an organism either of the filaria or malarial group. In none of Dr. Dercum's cases did malaria exist, and the same is true of the cases seen last year. One fact that has been brought out in the study of these is that a leucocytosis of moderate grade is quite uniformly present. In all of Dr. Dercum's cases and in two of three cases I observed, there was an increase in the number of the white corpuscles. In one case there was a considerable number of microcytes, many so small as to present the appearance of mere dots.

It seems as though we are to be visited from time to time by beri-beri, and probably more frequently in the future than in the past. It is, therefore a disease requiring our attention, and should be carefully diagnosed from rheumatism, with which it is often confounded.

Dr. James Hendrie Lloyd.—I would ask whether or not there could be a scorbutic element in these cases? The diet is strongly suggestive of it. I saw these cases with Dr. Dercum, and was rather struck with the fact that the peripheral symptoms were not very marked. The knee-jerks were preserved, and the gait was not typical of peripheral neuritis. There is no doubt that in these cases there was the environment and the food which would suggest the possibility of a scorbutic element.

Dr. Wharton Sinkler.—The question raised by Dr. Lloyd is an interesting one, for in nearly all the cases of beri-beri that have been reported there has been either an insufficiency of food or food which was lacking in nutritive qualities, especially albumin. This was so in the cases reported by Dr. Putnam of a number of sailors fishing on the banks of Newfoundland, where they had scanty food, consisting principally of fish, and lived under conditions which usually bring about scurvy. In Japan the epidemics seem to have occurred among those who lived almost exclusively on rice and fish. A number of cases have been reported as occurring on ships coming from the West Indies laden with sugar.

Dr. F. X. Dercum.—So far as my reading goes scurvy as we know it can have no place in beri-beri.

Beri-beri is a disease which is well defined. It is a multiple neuritis due to a toxine or to some organism like that of malaria. That the disease is, however, not malaria is shown by the fact that it occurs where malaria does not occur, and that malaria is far more widely distributed than beri-beri. Further, quinine, as is well known, has no action in beri-beri. In Japan people in the best circumstances are often attacked by the disease, so that in many cases the ordinary etiological factors of scurvy are absent.

Dr. Judson Daland.—In these three cases scurvy may be excluded. We know a good deal about scurvy, and I cannot recall a case of scurvy presenting beri-beri symptoms. In scurvy we do not have the multiple neuritis, although purpuric symptoms are common and the gums are early affected. Although from a dietetic point of view causes exist for the introduction of scurvy, yet the symptoms of beri-beri cannot be ascribed to scurvy.

EXHIBITION OF PATIENT.

By Dr. J. Madison Taylor.

Adjourned.

Epilepsy.—By J. A. Larrabee, M.D. (*The Medical and Surgical Reporter*, Phila., Mar. 31, 1894).

This paper is mainly devoted to a consideration of the causes and treatment of epilepsy. L. considers heredity and syphilis as doubtful causative factors, but believes that chronic alcoholics and neurotics in general are apt to transmit epileptic diathesis to their offspring. He emphasizes the importance of a first attack of convulsions in children, and calls attention to the close relation of cause and effect between night terrors and epilepsy. He opposes the views of Henoch and Goodheart that food is not a factor in the etiology of night terrors, and also thinks that the habit of taking food at night predisposes to night terrors. In his opinion, the bromide of ammonium is more efficacious than the other salts of bromine. MEIROWITZ.